## Amendments to the Drawings

The attached sheet of drawings includes a change to Fig. 10. This sheet replaces the original sheet including Fig. 10. In Fig. 10, the "Prior Art" label is added.


Attachment:    Replacement Sheet

## REMARKS

### I.    Introduction

At the time of the Office Action dated November 13, 2006, claims 1-16 are pending in this application. In this Amendment, claims 1, 5, 8, 12, and 13 have been amended, and claims 14-16 canceled. The drawings have also been amended. Care has been exercised to avoid the introduction of new matter. Specifically, claims 1, 8, and 12 have been amended to include the limitations recited in claims 14-16, respectively, and an additional limitation described on, for example, page 10, lines 6-12 of the specification. Claim 13 has also been amended in the same manner as claims 1, 8, and 12. Claims 1, 5, 8, and 12 have been amended for better form.

Claims 1-13 are now active in this application, of which claims 1, 8, 12, and 13 are independent.

### II.    The Objection to the Drawings

The Examiner suggested that Fig. 10 should be designated by a legend such as --Prior Art--. In response, Fig. 10 has been amended as suggested by the Examiner. Accordingly, withdrawal of the objections to the drawings is solicited.

### III.    The Objection to the Claims

Objections have been made to claims 1, 5, 8, and 12 because of informalities. The claims have amended as suggested by the Examiner. Applicants believe these amendments are fully responsive to the Examiner's concerns, and respectfully solicit withdrawal of the objections to the claims.

## IV.    The Rejection of Claim 13 under 35 U.S.C. §112, Second Paragraph

The Examiner asserted that it is unclear as to whether the term "reference test result signal" in the last line of claim 13 refers to the term "reference test result signal" in line 4 of the claim.

In response, the word "the" has been added prior to the term "reference test result signal" in the last sentence of the claim, as suggested by the Examiner. Withdrawal of the rejection of claim 13 under 35 U.S.C. §112, second paragraph is, therefore, respectfully solicited.

## V.    The Rejection of Claims 1-16 under 35 U.S.C. §103(a)

### Claims 1, 12, 14, and 16

Claims 1, 12, 14, and 16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants Admitted Prior Art ("AAPA"). In the statement of the rejection, the Examiner asserted that the AAPA discloses what is claimed.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicants submit that the AAPA does not teach an assembly for an LSI test including all the limitations recited by independent claim 1, as amended. Specifically, the AAPA does not teach the following limitations of claim 1:

> a first clock generator for generating a first clock as a reference clock for the
> actual operation in the target LSI;
>
> a second clock generator for generating a second clock to allow the target LSI to
> obtain the test signal from the LSI tester;
>
> a third clock generator for generating a third clock to allow the target LSI to
> output a test result signal, wherein the first clock, the second clock, and the third
> clock are asynchronous with each other; and

a printed circuit board on which the peripheral circuit and the first, second, and third clock generators are mounted.

In the claimed invention, the peripheral circuit and the first, second, and third clock generators are mounted on the printed circuit board. This allows a target LSI (device under test) to operate in the same manner as in actual operation.

According to claim 1, the first clock generator, the second clock generator, and the third clock generator respectively generate the first clock, the second clock, and third clock, asynchronously with each other. For example, the first clock (e.g., CKA in Fig. 1) may be used for the operation of the target LSI. The second clock (e.g., CKB) and may be used to input the test signal from the LSI tester to the target LSI, and the third clock (e.g., CKC) may be used to output the test result signal from the target LSI to the LSI tester. Because the first clock, the second clock, and the third clock are asynchronous with each other, input and output of data (test signal and test result signal) to the target LSI may be performed asynchronously with the internal operation of the target LSI (see, e.g., page 10, lines 6-12 of the specification). Even though the target LSI operates at a high speed under the control of the first clock, a LSI tester configured not to operate at such a high speed can be used to test that target LSI because, for example, the input and output for the LSI tester can be controlled by the second clock and third clock to allow the LSI tester to operate at a slower speed. Thus, the cost for testing a target LSI can be reduced.

As described in the specification, the AAPA has a problem of a conventional LSI tester in that the conventional LSI tester has "a difficulty in performing the test on a system LSI (system-on-a-chip) having features of high speed, asynchronous and multiple clocks, in the actual operation" (page 2, lines 3-10 of the specification). The AAPA does not teach how to solve this problem, which the claimed invention addresses. Specifically, at a minimum, the AAPA does

not teach the first clock, the second clock, and the third clock are asynchronous with each other, as claimed.

Accordingly, Applicants submit that the AAPA does not teach an assembly for an LSI test including all the limitations recited in independent claim 1, as amended, within the meaning of 35 U.S.C. §103. The above discussion is applicable to independent claim 12 reciting, among other things, "the first clock, the second clock, and the third clock are asynchronous with each other." It is noted that the rejection of dependent claims 14 and 16 has been rendered moot by cancellation of the claims. Applicants, therefore, respectfully solicit withdrawal of the rejection of the claims under 35 U.S.C. §103 and favorable consideration of independent claims 1 and 12.

Claims 8-11 and 15

Claims 8-11 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Fukuda. The rejection of claim 15 has been rendered moot by cancellation of the claim.

For independent claim 8 reciting, among other things, "the first clock, the second clock, and the third clock are asynchronous with each other," Applicants incorporate herein the arguments previously advanced in responding to the imposed rejection of claim 1 under 35 U.S.C. §103 for obviousness predicated upon the AAPA. The Examiner's additional comments and secondary reference to Fukuda do not cure the previously argued deficiencies in the AAPA. Dependent claims 9-11 are also patentably distinguishable over the AAPA and Fukuda at least because these claims respectively include all the limitations recited in independent claim 8.

Applicants, therefore, respectfully solicit withdrawal of the rejection of the claims under 35 U.S.C. §103 for obviousness predicated upon the AAPA and Fukuda, and favorable consideration thereof.

## Claims 2-4

Claims 2-4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Ellis.

Claims 2-4 depend from independent claim 1. Accordingly, Applicants incorporate herein the arguments previously advanced in responding to the imposed rejection of claim 1 under 35 U.S.C. §103 for obviousness predicated upon the AAPA. The Examiner's additional comments and secondary reference to Ellis do not cure the previously argued deficiencies in the AAPA.

Applicants, therefore, respectfully solicit withdrawal of the rejection of claims 2-4 under 35 U.S.C. §103 for obviousness predicated upon the AAPA and Ellis, and favorable consideration thereof.

## Claims 5-7

Claims 5-7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Fukuda.

Claims 5-7 depend from independent claim 1. Accordingly, Applicants incorporate herein the arguments previously advanced in responding to the imposed rejection of claim 1 under 35 U.S.C. §103 for obviousness predicated upon the AAPA. The Examiner's additional comments and secondary reference to Fukuda do not cure the previously argued deficiencies in the AAPA.

Applicants, therefore, respectfully solicit withdrawal of the rejection of claims 5-7 under 35 U.S.C. §103 for obviousness predicated upon the AAPA and Fukuda, and favorable consideration thereof.

Claim 13

Claim 13 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Fukuda.

Claim 13 recites, among other things, "the first clock, the second clock, and the third clock are asynchronous with each other." Applicants, thus, incorporate herein the arguments previously advanced in responding to the imposed rejection of claim 1 under 35 U.S.C. §103 for obviousness predicated upon the AAPA. The Examiner's additional comments and secondary reference to Fukuda do not cure the previously argued deficiencies in the AAPA.

Applicants, therefore, respectfully solicit withdrawal of the rejection of claim 13 under 35 U.S.C. §103 for obviousness predicated upon the AAPA and Fukuda, and favorable consideration thereof..

## VI. Conclusion

It should, therefore, be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Michael E. Fogarty
Limited Recognition No. L0098

**Please recognize our Customer No. 53080 as our correspondence address.**

600 13<sup>th</sup> Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 MEF:TT
Facsimile: 202.756.8087
**Date: January 31, 2007**

WDC99 1339912-1.060188.0632